

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 13010 3/2/2001]

[Docket No. 2000-NE-24-AD; Amendment 39-12129; AD 2001-04-10]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Canada (PWC) Model PW305 and PW305A Turbofan Engines

Federal Aviation Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to Pratt & Whitney Canada (PWC) Models PW305 and PW305A turbofan engines, that requires removing stage 4 low pressure turbine (LPT) disks from service before exceeding new, lower cyclic life limits. This amendment is prompted by the results of a spin pit test analysis which indicate that the stage 4 LPT disk does not have full published life. The actions specified by this AD are intended to prevent LPT disk failure resulting from premature cracking of the LPT disks, which could result in an uncontained engine failure and damage to the airplane.

**DATES:** Effective date April 6, 2001.

**FOR FURTHER INFORMATION CONTACT:** James Rosa, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone: (781) 238-7152; fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to PWC Models PW305 and PW305A turbofan engines, was published in the **Federal Register** on November 16, 2000 (65 FR 69258). That action proposed to require removing stage 4 LPT disks from service before exceeding new, lower cyclic life limits.

**No Comments Received**

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposal or the FAA's determination of the cost to the public. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

**Economic Impact**

There are currently 358 engines in the domestic fleet containing the affected stage 4 LPT disks, part numbers (P/N's) 30A1457 and 30A1499, and a total of 484 engines in the worldwide fleet. The total cost to the domestic fleet to remove and replace these disks at the new life limit of 4000 cycles-in-service (CIS), rather than the former life limit of 5000 CIS, is estimated to be \$6,331,015.

**Regulatory Impact**

This proposed rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this proposed rule.

For the reasons discussed above, I certify that this proposed regulation (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption **ADDRESSES**.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Safety.

**Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

**PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "av-info.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2001-04-10 Pratt & Whitney Canada:** Amendment 39-12129. Docket 2000-NE-24-AD.

**Applicability** Pratt & Whitney Canada (PWC) Models PW305 and PW305A turbofan engines with stage 4 low pressure turbine (LPT) disks, part numbers (P/N's) 30A1457 and 30A1499. These engines are installed on but not limited to British Aerospace BAe. 125 1000A, BAe. 125 1000B, Hawker 1000, and Learjet 60 series airplanes.

**Note 1:** This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance** Required as indicated, unless accomplished previously.

To prevent premature LPT disk failure due to cracking of the LPT disks, which could result in an uncontained engine failure and damage to the airplane, accomplish the following:

## **New Stage 4 LPT Disk Life Limit**

(a) Remove stage 4 LPT disks, P/N's 30A1457 and 30A1499, prior to exceeding the new life limit of 4000 cycles-in-service (CIS).

(b) Except for the provisions of paragraph (c) of this AD, no parts, identified by P/N in paragraph (a) of this AD, that exceed the new life limit of 4000 CIS, may be installed.

## **Alternative Method of Compliance**

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

**Special Flight Permits**

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

**Effective Date**

(e) This amendment becomes effective on April 6, 2001.

**FOR FURTHER INFORMATION CONTACT:** James Rosa, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone: (781) 238-7152; fax (781) 238-7199.

Issued in Burlington, Massachusetts, on February 21, 2001.

David A. Downey, Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.